

Laboratory Electrical Testing Laboratory, TELK, Angamaly South P.O.,
Ernakulam, Kerala

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7730

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Validity 16.08.2018 to 15.08.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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ELECTRICAL TESTING

I.	INDUCTORS & TRANSFORMERS			
1.	Power Transformer 3 MVA to 315 MVA, 3 ϕ , 3.6kV to 420 Kv & 1.5 MVA to 270 MVA 1 ϕ , 3.6kV to 420 kV	Voltage Ratio	IS 2026-1 IEC 60076-1	1 to 1000
		vector group / polarity check	IS 2026-1 IEC 60076-1	200 V to 415 V
		Winding resistance	IS 2026-1 IEC 60076-1	0.001 Ω to 100 Ω
		Insulation resistance	IS 2026-1 IEC 60076-1	0.1 M Ω to 1 T Ω
		Capacitance and tan delta	IS 2026-1 IEC 60076-1	Cap. 1 pF to 100 mF Tan delta 0.09 to 100
		No load loss	IS 2026-1 IEC 60076-1	500 W to 200 kW
		load loss	IS 2026-1 IEC 60076-1	1000 W to 1000 kW
		Impedance	IS 2026-1 IEC 60076-1	1 % to 50 %
		zero phase sequence impedance	IS 2026-1 IEC 60076-1	1 % to 50 %
		Induced over voltage	IS 2026-3 IEC 60076-3	10 kV to 630 kV
		Power frequency voltage withstand test (Separate source voltage withstand)	IS 2026-3 IEC 60076-3	10 kV to 275 kV
		Partial discharge	IS 2026-3 IEC 60076-3	1pC to 10000 pC
		Lightning impulse (chopped wave)	IS 2026-3 IEC 60076-3	20 kV to 1600 kV
		Switching impulse voltage withstand	IS 2026-3 IEC 60076-3	375 kV to 1175 kV

Mandeep Kumar
Convenor

Anuja Anand
Program Manager

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		Temperature rise	IS 2026-3 IEC 60076-3	1200 A, 66 kV 20 °C to 120 °C
		Magnetic balance	CBIP manual on Transformers. Pub No. 317	At 240 Volt
		RSO	IS 2026-1 IEC 60076-1 (Annexure B)	50 V to 500 V impulse
		Audible sound level	IEC 60076-10-1	16.4 dB to 100 dB
		Harmonics content	IS 2026-1 IEC 60076-1	1 to 49 th Harmonic
		magnetizing current	IS 2026-1 IEC 60076-1	200 V to 415 V, 0 to 10 A
		Auxiliary loss	IS 2026-1 IEC 60076-1	0.5 kW to 25 kW

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